

REMARKS

Claims 1-20 are currently pending in the application. By this response, no claims are amended, added, or canceled. Reconsideration of the rejected claims in view of the following remarks is respectfully requested.

35 U.S.C. §103 Rejection

Claims 1-3, 6, 7, 10, 14, and 17-20 were rejected under 35 U.S.C. §103(a) for being unpatentable over U. S. Patent No. 4,689,102 issued to Prawdzik *et al.* ("Prawdzik") in view of U. S. Patent No. 4,818,595 issued to Ellis ("Ellis"). Claims 4, 5, 8, 11-13, 15 and 16 were also rejected under 35 U.S.C. §103(a) for being unpatentable over Prawdzik in view of Ellis and further in view of U. S. Patent No. 3,192,294 issued to Streed *et al.* ("Streed").¹ These rejections are respectfully traversed.

The Examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. MPEP §2142.

¹ The Examiner refers to Prawdzik *et al.* as "US 3192294", and to Streed as "'294". It is noted that U.S. Pat. No. 3192294 is issued to Streed *et al.*, not Prawdzik *et al.* Because the Examiner is referring to Prawdzik as previously used with respect to claims 1-3, 6, 7, 10, 14, and 17-20, it will be assumed that any reference to Prawdzik refers to U.S. Pat. No. 4,689,102. Moreover, it will be assumed that any reference to Streed refers to U.S. Pat. No. 3,192,294.

Claims 1-3, 6, 7, 10, 14, and 17-20 in view of Prawdzik and Ellis

Independent claim 1

The present invention relates generally to wood fiberboard and, more particularly, to a floor panel composed of a support board with a decoration. In non-limiting exemplary implementations of the invention, a decoration is printed directly onto a top side of a support board and covered by a layer of synthetic resin. By virtue of this configuration, the paper layer of known systems is eliminated. As such, known problems associated with the decoration being printed on the paper layer (e.g., unwanted growth of the paper layer, complex cutting operations, etc.) may also be eliminated. Claim 1 recites:

1. A wood fiberboard, composed of a panel comprising a support board with a top side and an underside, the top side having a decoration, of a wood or tile decoration, wherein the decoration is printed onto the top side of the support board and is covered by at least one layer of a transparent synthetic resin.

The applied references do not teach or suggest these features.

The Examiner is of the opinion that Prawdzik teaches all of the features of claim 1 except for a decoration printed on the top side of the support board. Applicants agree that Prawdzik does not teach or suggest this feature. The Examiner further asserts that Ellis teaches that it is known to print indirectly and directly on substrates, that it would have been obvious to modify Prawdzik in view of Ellis, and that the resultant combination teaches or suggests all of the features of the claimed invention. Applicants respectfully disagree.

Prawdzik shows a method of producing decorative laminates, including a method for producing assemblies 5 composed of a decorative sheet 9 and core stock 11. The decorative sheet 9 is printed with a decoration and impregnated with resin. The core stock 11 (e.g., kraft paper) is also impregnated with resin. The decorative sheet 9 and core stock 11 are pressed together in a high-pressure press assembly 1, 3 (FIG. 1). A release surface 15 of the press assembly 1, 3 is coated with a resin coating 17, such that during pressing abrasion-resistant particles (e.g., corundum) are transferred to the resin-impregnated decorative sheet (col. 4, lines 20-25; col. 5, lines 5-10 and 40-45). Prawdzik also shows a low-pressure process in which the decorative sheet 9 can be applied to a substrate 37 instead of core stock 11 (FIG. 4). Thus, Prawdzik shows attaching a decorative sheet to a core (e.g., either core stock 11 or substrate 37). As admitted by the Examiner, Prawdzik does not show a support board with a decoration printed onto the top side of the support board, as recited in the claimed invention.

In fact, Prawdzik shows what Applicants are already aware of and describe in the Background of the Invention section of the instant application: printing a decoration onto a paper web, coating the paper with resin, and pressing the paper onto a support board. In such a known process, the dimensions of the printed paper (i.e., decorative sheet) may change, causing the paper to be distributed unevenly on floor panels, resulting in the decorations being offset along connecting edges of panels. Decorations that are only slightly offset are noticeable to an observer, and greatly detract from the aesthetic appeal of the floor. The claimed invention specifically addresses these drawbacks by eliminating the paper layer by printing the decoration directly on the substrate.

Contrary to the Examiner's assertions, Ellis does not compensate for the deficiencies of Prawdzik with respect to claim 1. The Examiner states

The secondary reference to Ellis, however teaches that it is known in the instant art to both print indirectly and directly on substrates... (Office Action, paragraph 2).

Applicants respectfully disagree and submit that Ellis does not teach or suggest printing a decoration directly on a substrate.

Ellis discloses a fire barrier coating for use with plywood. The fire barrier coating is intended to prevent ignition and fire spread of the underlying substrate (i.e., plywood) by interposing an incombustible layer between the flame and the substrate (col. 10, lines 26-30). The coating may be applied to the exterior surface of the plywood by brushing, spraying, dipping, roller coating, etc. (col. 21, lines 14-17). Ellis teaches that the a decoration may be printed on the coating after the coating is applied to the substrate, as the following passages cited by the Examiner demonstrate:

... the coatings may be **overprinted** by silk-screening or other printing methods to give a decorative pattern. (col. 20, lines 43-45, emphasis added);

and

The coating used alone or impregnated into one of the fabrics listed previously, when cured, forms a hard highly abrasion-resistant ceramic-like **layer** (Mohs hardness of 5.5). It conforms with exquisite detail to the surface of the wood substrate, and bonds tenaciously. The surface coating can also be tinted any desired color, or **overprinted** with a pattern; or top-covered with wall paper on the surface. (col. 64, lines 7-14, emphasis added).

A fair reading of the above passages reveals that Ellis discloses applying a layer of coating to the substrate (i.e., plywood) and then printing a decorative pattern over the layer of coating. Thus, the decorative pattern is indirectly printed on the substrate via the layer of coating, and is not printed on the top side of a support board, as recited in the claimed invention. Ellis simply does not teach or suggest a decoration printed directly on the surface of a substrate. Therefore, Ellis does not compensate for the above-noted deficiencies of Prawdzik with respect to claim 1, and the applied references do not teach or suggest every feature of the claimed invention.

Independent claim 6

The present invention also relates to a process of producing a wood fiberboard.

More particularly, claim 6 recites, in pertinent part:

- a) a decoration, of a wood or tile decoration printed onto one or two sides of the board;
- b) a screen roller is used to spread one or more synthetic-resin layers, of melamine-resin or urea-resin layers, on the side with the decoration and the sides located opposite the latter; and ...

The applied references do not teach or suggest these features.

The Examiner is of the opinion that Prawdzik teaches all of the features of claim 6 except for a decoration printed on the top side of the support board. The Examiner further asserts that Ellis teaches that it is known to print indirectly and directly on substrates, that it would have been obvious to modify Prawdzik in view of Ellis, and that

the resultant combination teaches or suggests all of the features of the claimed invention. Applicants respectfully disagree.

Applicants agree with the Examiner that Prawdzik does not teach or suggest a decoration of a wood or tile decoration printed onto one or two sides of the board. Contrary to the Examiner's assertions, however, Applicants further submit that Prawdzik does not teach or suggest all of the other features of claim 6.

Prawdzik does not teach or suggest a screen roller is used to spread one or more synthetic-resin layers, of melamine-resin or urea-resin layers, on the side with the decoration, as recited in claim 6. As discussed above, Prawdzik discloses providing a decoration on a sheet 9, and then attaching the sheet to the substrate 37 (FIG. 4). The decorative sheet 9 may be attached to the substrate 37 via press platens (FIG. 4), or alternatively in a low pressure continuous laminator assembly (see col. 1, lines 22-33; see also col. 8, line 64 through col. 9, line 9). Prawdzik discusses that rollers may be used in a continuous laminator to press plies of laminate together. However, Prawdzik does not teach or suggest using a roller to spread a synthetic resin layer onto a side of a board. Instead, Prawdzik only teaches that a roller can be used for pressing layers of the laminate together. Applicants submit that pressing layers of laminate together does not constitute spreading a synthetic resin layer onto a side of the board. Therefore, Prawdzik does not teach or suggest a screen roller is used to spread one or more synthetic-resin layers, of melamine-resin or urea-resin layers, on the side with the decoration, as recited in claim 6.

Even assuming *arguendo* that Prawdzik does disclose using a screen roller to spread a synthetic resin layer on the side of the board with the decoration, which Applicants do not concede, Prawdzik still does not show using a screen roller to spread a synthetic resin layer on the side of the board located opposite the side with the decoration, as further recited in claim 6. In fact, Prawdzik does not disclose a synthetic resin layer on the side of the board located opposite the side with the decoration. Instead, Prawdzik discloses that a backing or sealing sheet 39 may be positioned on the lower portion of the substrate 37. Therefore, Prawdzik does not teach or suggest a screen roller is used to spread one or more synthetic-resin layers, of melamine-resin or urea-resin layers, on the side of the board located opposite the side with the decoration, as recited in claim 6.

Ellis does not compensate for the above-noted deficiencies of Prawdzik with respect to claim 6. Ellis does not teach or suggest a screen roller is used to spread one or more synthetic-resin layers, of melamine-resin or urea-resin layers, on the side with the decoration. In fact, Ellis makes no mention of spreading a synthetic resin layer on sides of a board, much less using a screen roller to do so. Therefore, Prawdzik and Ellis, alone or in combination, do not teach these features of claim 6.

Moreover, contrary to the Examiner's assertion, Ellis does not teach or suggest a wood or tile decoration printed onto one or two sides of the board, as further recited in claim 6. As discussed above, Ellis discloses applying a layer of fire-retardant coating to a substrate (i.e., plywood), then overprinting a decorative pattern on the layer of coating. This, however, does not constitute a wood or tile decoration printed onto one or two

sides of the board. Therefore, Prawdzik and Ellis do not teach or suggest each and every feature of claim 6.

Furthermore, as discussed above, there is no motivation to combine Prawdzik and Ellis as suggested by the Examiner.

Dependent claims 2, 3, 7, 10, 14 and 17-20

Applicants respectfully submit that claims 2, 3, 7, 10, 14, and 17-20 depend from allowable independent claims, and are allowable based upon the allowability of the respective independent claims.

Moreover, Applicants submit that Prawdzik and Ellis do not teach or suggest many of the features of the dependent claims. For example, Prawdzik and Ellis do not teach or suggest a decoration printed on the underside of a support board, as recited in claims 2 and 18. The Examiner is of the opinion that Prawdzik discloses this at lines 10-18 of column 9. Applicants respectfully disagree, and submit that Prawdzik merely shows the application of a backing sheet to the surface opposite the decorative sheet. A sealing or backing sheet is not a decoration printed on a support board. A sealing or backing sheet is merely a sheet used for added support, and would not have a printed decoration. Prawdzik makes no mention whatsoever of a decoration applied to the underside of the board, much less printed on the underside of the board. Therefore, the applied references do not teach or suggest all of the features of claims 2 and 18.

Applicants further submit that Prawdzik and Ellis do not teach or suggest that the decoration is covered by two layers of synthetic resin, as recited in claim 3. In

addressing claim 3, the Examiner merely asserts that Prawdzik discloses the use of corundum particles. Applicants do not disagree. However, the Examiner does not even address the recited feature of two layers of synthetic resin. Prawdzik does not teach or suggest two layers of synthetic resin covering the decoration. Therefore, the applied references do not teach or suggest all of the features of claim 3.

Applicants further submit that the Examiner has failed to properly establish a *prima facie* case of obviousness with respect to claim 14. Claim 14 depends from claim 4. However, the Examiner does not assert that Prawdzik and Ellis teach or suggest a relief corresponding to the decoration, as recited in claim 4. In fact, the Examiner admits in Paragraph 5 of the outstanding Office Action that Prawdzik and Ellis fail to teach the features of claim 4. For this reason alone, the rejection of claim 14 is clearly improper and should be withdrawn. In any event, as discussed above, Prawdzik does not disclose that the decoration is covered with two layers of synthetic resin. Therefore, the applied references do not teach or suggest all of the features of claim 14.

Accordingly, Applicants respectfully request that the rejection over claims 1-3, 6, 7, 10, 14, and 17-20 be withdrawn.

Claims 4, 5, 8, 11-13, 15 and 16 in view of Prawdzik, Ellis and Streed

The Examiner asserts that Prawdzik, Ellis, and Streed teach or suggest all of the features of dependent claims 4, 5, 8, 11-13, 15 and 16. Applicants respectfully disagree.

As discussed above, Prawdzik and Ellis do not teach or suggest a decoration printed on a support board, as recited in independent claims 1 and 6. Moreover, Prawdzik and Ellis do not teach or suggest a screen roller is used to spread one or more synthetic-resin layers, of melamine-resin or urea-resin layers, on the side with the decoration and the sides located opposite the latter, as recited in claim 6. Streed does not compensate for these deficiencies of Prawdzik and Ellis.

Streed discloses a method for molding a plastic sheet such that it has a deeply textured surface, such as that reminiscent of pile carpeting. Streed discloses supporting a powdered resin layer 12 on a belt 10. The belt 10 moves the powdered resin layer 12 under a heater 14 which melts and sinters together the particles of powdered resin. The layer then passes under an embossing roll 15 that presses an embossed detail 18 into the top surface of the layer (FIG. 4). Streed does not disclose a board, as recited in both claims 1 and 6. Instead, Streed discloses a plastic sheet. Furthermore, Streed does not teach or suggest a printed decoration on a surface of a board. Even further, Streed does not teach or suggest using a screen roller to spread synthetic-resin layers on a board. Therefore, Streed does not compensate for the deficiencies of Prawdzik and Ellis with respect to independent claims 1 and 6, and the applied references do not teach or suggest all of the elements of claims 1 and 6.

Applicants further submit that the applied references do not teach or suggest a relief corresponding to a decoration printed on the surface of a board, as recited in claims 4, 8, 15, and 16. The Examiner admits that Prawdzik and Ellis do not disclose a relief, but asserts that Streed teaches providing such a relief. However, the Examiner

does not even address the claimed feature that the relief corresponds to the decoration. In any event, Streed, on which the Examiner relies to show a relief, does not disclose a printed decoration. Therefore, it is impossible for Streed to teach a relief that corresponds to a printed decoration. Simply put, none of the applied references shows a relief that corresponds to a decoration that is printed on a support board. Therefore, applied references do not teach or suggest all of the features of claims 4, 8, 15, and 16.

Furthermore, none of the applied references teaches or suggests an underside of the board has a relief corresponding to the decoration, as recited in claims 5 and 9. Even assuming *arguendo* that Streed teaches providing a relief on a side of a support board, which Applicants do not concede, Streed only shows the embossed detail 18 on a single side of the finished plastic sheet. Streed does not teach or suggest providing the embossed detail on the underside of the plastic sheet. Therefore, Streed does not teach or suggest providing a relief on the underside of a board, as recited in claims 5 and 9.

Even further, the combination of Prawdzik, Ellis, and Streed is improper because Streed is non-analogous art. Prawdzik is directed to a method for the production of laminates which are employed in conjunction with a substrate such as particleboard for use in countertops, furniture and the like (col. 1, lines 13-16). Streed, on the other hand, is directed to making carpet or the like from vinyl resin and having a textured surface that is reminiscent of pile carpeting. Streed, unlike Prawdzik, makes no mention whatsoever of a laminated structure, and no mention of a substrate to which a decorative sheet is applied. Instead, Streed discloses providing a powdered resin layer

on a belt, and moving the belt under a heater for melting and sintering together the particles of the powdered resin. The skilled artisan concerned with assembling a laminate structure comprising a substrate and a decorative sheet, as described in Prawdzik, would not look to a method of forming a carpet-like structure from plastic powder for guidance. Therefore, Streed is non-analogous art and there is no motivation to combine Prawdzik and Streed.

Accordingly, Applicants respectfully request that the rejection over claims 4, 5, 8, 11-13, 15, and 16 be withdrawn.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants submit that all of the claims are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue. The Examiner is invited to contact the undersigned at the telephone number listed below, if needed. Applicants hereby make a written conditional petition for extension of time, if required. Please charge any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 19-0089.

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